

### REMARKS

Claims 1, 8, 15, and 18 have been amended. No claims have been cancelled or added. Hence, Claims 1-20 are pending in the Application.

As a preliminary matter, receipt of the Notice of Draftsperson's Patent Drawing Review is acknowledged.

### SUMMARY OF REJECTIONS/OBJECTIONS

Claims 1, 8, 15, and 18 were objected to for not spelling out the acronyms IP and SLIC.

Claims 1, 2, 4-9, and 11-19 were rejected under 35 USC 102(e) as allegedly anticipated by Rabenko et al. (U.S. Patent Application Publication No. 2002/0006137).

Claims 3, 10, and 20 were rejected under 35 USC 103(a) as being allegedly unpatentable over Rabenko et al. in view of Czajkowski et al. (U.S. Patent No. 6,522,647).

Claims 1-20 were rejected under 35 USC 103(a) as being allegedly unpatentable over Edson (U.S. Patent No. 6,526,581) in view of Wallace et al. (U.S. Patent No. 6,647,117).

CLAIMS 1, 2, 4-9, AND 11-19 (Rabenko et al.)

Rabenko et al.'s filing date, May 8, 2001, is after the filing date of the present application, June 30, 2000. Consequently, the priority dates of the two provisional applications must be relied upon for the rejection. Only material that is supported by the provisional applications may be used to reject the claims of the present application. For example, the provisional applications do not support devices of the Rabenko et al.'s non-

provisional application that are combinations of the features taken from each of the two provisional applications, but not actually present in either application. However, the Office Action has not demonstrated that the content relied upon for the rejection is in fact supported by either provisional application, and has not demonstrated that the content relied upon can be found in the same provisional application.

INDEPENDENT CLAIMS 1, 8, 15, AND 18 (Rabenko et al.)

Claims 1, 8, 15, and 18 recite, “wherein said packets conform to a set of protocols that excludes IP”. In this regard, the Office Action (at the paragraph bridging pages 2 and 3) states,

Rabenko discloses ... voice packet has a high priority than the data packet for transmitting via HPNA wherein the IP excludes from LAN; See Pages 2, Sec 32 to Page 3, Sec 47; See Pages 6-7, Sec 74, 77, 78, 80-88; Page 11, sec 120, Page 15, sec 143, 152; Page 16, Sec 160-165, Page 21-26, Sec 216-267).

However, none of the numerous cited passages recite anything that suggests using packets that conform to a protocol that “excludes IP”. Additionally, Rabenko et al. states,

[0051] In addition, the described exemplary embodiment can support multiple inputs in accordance with a variety of protocols. For example, a universal serial bus transceiver 204 can provide transparent *bi-directional IP traffic* between devices operating on a USB such as for example a PC (personal computer) workstation, server printer or other similar devices (not shown). Additionally, an IEEE 802.3 compliant media independent interface (MII) 210 in conjunction with an Ethernet MAC 211 can also provide bi-directional data exchange between devices such as, for example a number of PCs and/or Ethernet phones (not shown) (emphasis added).

Thus, according to the above paragraph, the packets on Rabenko et al.’s network may conform to the IP protocol, and IP is not excluded. In fact, the Applicants’ background section (at page 6) teaches

All of the previous approaches suffer from higher system costs due to varying factors. The voice over IP approach has higher system cost because the protocol stack involved in voice over IP is significant (requires IP, UDP, RTP, and one of

either MGCP, SGCP or H.323) and therefore requires considerable more processing capability, hence cost.

Similarly, Rabenko et al. state,

[0101] When a voice channel is successfully established, real time transport protocol (RTP) is used to transport all packets to guarantee interoperability. Real time transport protocol (RTP) provides end-to-end delivery services for data with real time characteristics, such as interactive audio and video.

Thus, just like the Applicants' background section, Rabenko et al. use RTP, which also does not exclude IP.

#### CLAIMS 8 AND 15 (Rabenko et al.)

Additionally, claims 8 and 15 recite

a SLICSubscriber Line Interface Circuit (SLIC) configured to receive analog phone signaling and generate digitized phone signaling

The Office Action states (at page 2),

Rabenko discloses ... a SLIC configured to receive analog phone signaling and generate digitized phone signaling (Fig 16, Ref 1610)

However, in contrast, Rabenko et al. state,

[0267]...The SLIC performs a voltage level conversion delivering the voltage levels required by the POTS telephone.

Thus, in contrast to claims 8 and 15, Rabenko et al. do not disclose the SLIC being "configured to receive analog phone signaling and generate digitized phone signaling", but being for voltage conversion instead.

#### DEPENDENT CLAIMS 3, 10, AND 20 (Rabenko et al. in view of Czajkowski et al.)

Regarding claims 3, 10, and 20, the Office Action (at page 4) states,

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply an adapter layer such AAL2 for

generating a mini packet for transmitting via network as disclosed by Czajkowski's system and method into Rabenko's system and method. The motivation would have been to obtain a bandwidth efficient in the delay sensitive applications.

The Applicants disagree, and respectfully submit that in fact AAL2 is not normally efficient in its usage of ATM cells. Although Wallace et al. (at column 7, lines 32-53) state

This low-power mode achieves lower power consumption by a combination of one or more of the following:

1. ....

9. in the case of AAL 2 ATM voice transport, use a profile which gives efficient usage of ATM cells

10. reducing POTS support to a single active POTS channel. This may involve (sic) dropping some calls in progress.

Thus, AAL 2 ATM voice transport is not being used to give efficient usage of ATM cells. Instead, because AAL 2 ATM is being used, which is normally not efficient in its usage of ATM cells, a special "profile" must be used during low power operations. Further, the low power operations of Wallace et al. are not normally used by even Wallace et al. Instead, Wallace et al. (at column 7, lines 26-31) state

***On detection of loss of power to the customer premises equipment ..., the CPE switches Into(sic) a low-power mode***, so that it operates from power which is supplied by DC feed down the subscriber line alone, without the need for support from any other external power source.

One reason low power operations are not normally used is because they may even "Involve dropping some calls in progress". Thus, Wallace et al. are willing to tolerate inferior operations (such as those of the special "profile" for the AAL2 that give efficient cell usage) during their emergency low power operations. However, were the efficient profile of the AAL2 a desirable profile, it would be used all the time, and not just during low power operations. In other words, Wallace et al. suggest that AAL2 in normal operation is inefficient, and during low power operations (which are undesirable and

should only be used during power outages) a special profile should be employed that has disadvantages and should not be used during normal operations. Thus, although Wallace teaches a work around for using AAL2, Wallace et al. does not suggest usage of AAL2, and even suggests that AAL2 is inefficient and therefore teach away from using AAL2.

Further even were the Office Action correct that AAL2 is more efficient, the motivation of AAL 2 being more efficient, which is relied upon by the Office Action, is a motivation that is not suggested in the prior art cited by the Office Action. As stated in MPEP 2143.01, p. 2100-125, entitled, **“THE PRIOR ART MUST SUGGEST THE DESIRABILITY OF THE CLAIMED INVENTION”**,

“In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not *the reference teachings* would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification.” *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

Thus, motivations that are not taught or suggested by the prior art are not sufficient to prove that the reference combination was obvious. Additionally, such a motivation is impermissible hindsight. Since the Office Action has not brought any proof for the alleged motivation to combine the Rabenko et al. and Czajkowski et al., the Office Action has not established a prima fascia case of obviousness as required under 35 USC 103(a), and the rejection should be withdrawn.

CLAIMS 1, 3, 10, 8, 15, 18, and 20 (Edson in view of Wallace et al.)

Similar to the Office Action’s remarks about the combination of Rabenko et al. and Czajkowski et al., regarding claims 1-20, the Office Action (at page 5) states,

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply an adapter layer such AAL2 for

generating a mini packet for transmitting via network as disclosed by Wallace's system and method into Edson's system and method. The motivation would have been to obtain a bandwidth efficient in the delay sensitive applications.

Thus, again the Office Action relies on the motivation of "to obtain a bandwidth efficient in the delay sensitive applications" except this time the alleged motivation is used as a rationale for combining Edson and Wallace et al. Since the Office Action applies the same rationale for combining Edson and Wallace et al. as for combining Rabenko et al. and Czajkowski et al. the same arguments apply. Specifically, regarding claims 3, 10, and 20, as shown above, Wallace et al. evidences that AAL 2 protocol is inefficient in its use of cells, which would have deterred one of ordinary skill from using the AAL 2 protocol in the system of Edson. Regarding claims 1, 3, 10, 8, 15, 18, and 20, the Office Action has not shown that the prior art in anyway suggests the motivation relied upon for combining Wallace et al. and Edson. Motivations that are not taught or suggested by the prior art are not sufficient to prove that the reference combination was obvious.

Additionally, such a motivation is impermissible hindsight. Therefore, since the Office Action has not brought any proof for the alleged motivation to combine the Edson and Wallace et al., the Office Action has not established a prima fascia case of obviousness as required under 35 USC 103(a), and the rejection should be withdrawn.

CLAIMS 1, 8, 15, and 18 (Edson in view of Wallace et al.)

Claim 1 recites "converting analog phone signals into packets for transporting digitized voice". Claims 8, 15, and 18 include similar recitations. However, Wallace et al. (at column 1, lines 28-40) teach

Unlike normal telephony the derived voice method of VoDSL requires local power at the CPE to perform the modulation and demodulation.

Conventional, analogue. (sic) POTS telephony over a twisted pair to the LTE has the benefit that during power failure at the customer premises emergency

calls can still be placed since the line and the handset at the customer premises are powered from the central office. A disadvantage of existing VoDSL modems is that the amount of power required for normal operation could severely limit the operational loop length and not provide a service able to reach the majority of consumers.

Thus, Wallace et al. teach that conventional VoDSL (and thereby imply that any other conventional digital signal) requires power during normal operations, and cannot be supported if there is a power failure at the customer premises. Although Wallace et al. provide a work around for dealing with the power needs of VoDSL (or other digital signal) during a power outage at the customer cite, Wallace et al. admit that their work around has disadvantages such as “calls may be dropped”, which is significant. Thus, one of ordinary skill would have deduced from Wallace et al. that it may be desirable to use analog signals for phones in the house, so that phone service is still available during power outages and calls in progress do not need to be dropped using Wallace et al.’s work around. In contrast, claim 1 recites “converting analog phone signals into digital phone signals”, and Edson includes a digital to analog converter 312 on analog phone 32. Thus, Wallace teaches away from using the system of Edson and from the invention of claim 1.

Additionally, Edson illustrates a two line system including line 21, having a computer 43, and line 21, having an analog phone 32. In this regard, Edson (at column 8, lines 51-56) states,

The gateway 13 provides a routing functionality between the wide area links and the interfaces to one or more internal media, shown for example at 21 and 23. The interfacing between the links and the routing function effectively provide all devices coupled to the internal media to communicate via any of the external networks.

In other words, the manner in which Edson proposes to “effectively provide all devices coupled to the internal media [with a means] to communicate via any of the external

networks” is by “the routing function” of gateway 13. Thus, Edson uses a routing function so that different devices can be placed on different lines and still be served by gateway 13, and without the routing function, gateway 13 may not be able to accommodate the device on line 21 or line 23. Thus, Edson intentionally separates the devices of line 21 (such as the computer 43) and line 23 (such as the phone 32). Since the IP protocol and the voice protocol are routed to different lines, there cannot be any motivation to provide the AAL2 protocol (as recited in claim 3) or “packets [that] conform to a set of protocols that excludes IP” (as recited in independent claims 1, 8, 15 and 18) to line 21 having computer 43, because computers often use IP for communicating. Further, regarding line 23 and telephone 32, Edson (at column 8, lines 18-28) states,

However, the D1/2 interface 312 also provides the necessary conversions between digital and analog and sends and receives data messages over the media 21 relating to the standard telephone line signaling used by the POTS telephone 32. ***In accord with one aspect of the invention, this processing also entails digital compression decompression, packet assembly/disassembly and appropriate signaling to enable Internet Protocol (IP) transport of the telephone communication signals,*** for example through the gateway 13 and one of the high-speed links to the public Internet (emphasis added).

Thus, Edson also teaches the use of IP on line 23 in conjunction with phone 32 and interface 312. Consequently to excludes IP is contrary to the teachings of Edson. As stated in MPEP 2145.03 (III), p. 2100-138

*A prima facie* case of obviousness may also be rebutted by showing that the art, in any material respect, teaches away from the claimed invention. *In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997)....

Also compare with MPEP 2043.02, p. 2100-127, the sections entitled, THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART UNSATISFACTORY FOR ITS INTENDED PURPOSE” and “THE PROPOSED MODIFICATION CANNOT CHANGE THE PRINCIPLE OF OPERATION OF A REFERENCE”.



CLAIMS 8 AND 15 (Edson in view of Wallace et al.)

Regarding independent claims 8 and 15, the Office Action does not address Edson's lack of a SLIC, and does not give a motivation for modifying Edson to include a SLIC.

OTHER DEPENDENT CLAIMS

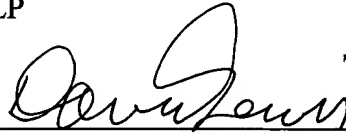
The pending claims not discussed so far are dependant claims that depend on an independent claim that is discussed above. Because each of the dependant claims include the limitations of claims upon which they depend, the dependant claims are patentable for at least those reasons the claims upon which the dependant claims depend are patentable. Removal of the rejections with respect to the dependant claims and allowance of the dependant claims is respectfully requested. In addition, the dependent claims introduce additional limitations that independently render them patentable. Due to the fundamental difference already identified, a separate discussion of those limitations is not included at this time.

For the reasons set forth above, Applicant respectfully submits that all pending claims are patentable over the art of record, including the art cited but not applied. Accordingly, allowance of all claims is hereby respectfully solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Respectfully submitted,

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